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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO. |
|---|-------------|----------------------|-------------------------|------------------|
| 09/674,249  | 10/02/2001  | Nobuhiko Tsuda       | Q61520                  | 5228             |
| 7580 11/28/2003<br>Sughrue Mion Zinn Macpeak & Seas<br>2100 Pennsylvania Avenue NW Suite 800<br>Washington, DC 20037-3213 |             |                      | EXAMINER<br>TRUONG, DUC |                  |
|   |             |                      | ART UNIT                | PAPER NUMBER     |

1711

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/674,249

Applicant(s)

TSUDA ET AL.

Examiner

Duc Truong

Art Unit

1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 1/
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

### DETAILED ACTION

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stilmar or EP 0481478, both of record on 1449.

Stilmar discloses fluorine containing copolymers derived from tetrafluoroethylene and vinyl esters (0-0.5 mole per mole of tetrafluoroethylene) (See Abstract; col. 2, lines 33-50). Note that the fluorine content of 60% (see example 1, line 47; col. 8, line 16) satisfied for the claimed "of not less than 10% by weight" and the copolymer is insoluble in organic solvent (see col. 2, line 1).

EP 0481478 discloses in the Comparative Example (see page 5, line 55 et seq) a copolymer comprising tetrafluoroethylene and hydroxybutyl vinyl ether, as in claim 4, which is completely insoluble in THF. Since the % of the tetrafluoroethylene is 50%, the fluorine % is more than 10%.

The disclosures of the references differ from the instant claims in that they do not disclose the claimed melting point. However, the composition disclosed by the references is prepared from reactants under process conditions that are inclusive of the claimed reactants and conditions. In view of this similarity, it would appear to be inherent that a product, a fluorine containing copolymer, having the claimed melting point could be prepared following the teaching of the references. See *In re Best* 195 USPQ 430, 433 (CCPA 1977).

Note that Applicant's arguments are based on the characteristic such as the claimed copolymer is crosslinkable in claim 1 and the use of the term "resinous" in claims 2-4. Note also that this is the claimed composition and the characteristic is based on the way Applicant claimed. The use of the term "resinous" only defines that the copolymer has a high molecular weight.

Since the references do disclose the required composition of the claims, then the characteristic would be considered inherent in the prior art (see last Office action).

Claims 5-10 have been added to disclose a resin composition comprising a crosslinkable fluorine containing resinous copolymer and a curing agent. IN the presence of a curing agent, the fluorine containing resinous copolymer must be crosslinked. This is inconsistent with Applicant's arguments in that the EP'478 reference discloses a crosslinked polymer and not a crosslinkable polymer.

Further, the crosslinked composition of claim 5 is suitable for molding (see claim 9) or coating (see claim 10) which is included in the teachings of the Stilmar reference (see col. 1, lines 34-36).

Applicant also argues that in the comparative Examples of EP'478, crosslinking is carried out without a curing agent. This is incorrect since the reference does disclose the use of an azobisisobutyronitrile and methyl vinyl ether.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Truong whose telephone number is 703-308-2437. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 703-308-2462. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9781 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

DT  
November 14, 2003



DUCTRUONG  
PRIMARY EXAMINER